Supplementary Material: Time-dependent production of the bioactive peptides endolides A and B and the polyketide mariline A from the spongederived fungus *Stachylidium bicolor* 293K04

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Figure S1. UV-LC-MS detection chromatograms for the pure chemical family representatives of *S. bicolor* 293K04 isolated secondary metabolites, namely endolides A-B and mariline A₁/A₂.



Figure S1.1. UV-LC-MS detection of pure endolide A (above, UV; below, extracted pseudo molecular ion positive mode, Rt 5.0 min.).



Figure S1.2. UV-LC-MS detection of pure endolide B (above, UV; below, extracted pseudo molecular ion positive mode, Rt 4.7 min.).



Figure S1.3. UV-LC-MS detection of pure mariline A (above, UV; below, extracted pseudo molecular ion positive mode, Rt 7.4 min, +/-0.1 min.).



Figure S1.4. UV-LC-HRES-MS detection of mariline A1/A2 in S. bicolor 293K04 extracts. Exact mass extracted in pseudo molecular ion positive mode, Rt 7.3 Min; mass found M+H+=534.3219)

Table S1. Data from the time course study.

Table S1.1. pH values and average, standard deviations and respective measuring temperatures of pH.

Day	pН	Measuring Temp. pH (°C)			
	5.65	26.3			
	5.58	26.4			
2	5.56	26.3			
	5.57	26.3			
	5.63	26.7			
Average	5.60	26.4			
St dev.	0.03	-			
	4.92	26			
	4.88	25.8			
5	4.86	26.1			
	4.90	26			
	4.89	25.9			
Average	4.89	26.0			
St dev.	0.02	-			
8	4.58	26.1			
	4.60	25.9			
	4.58	25.8			
	4.59	25.8			
	4.57	25.8			
Average	4.58	25.9			
St dev.	0.01	-			
	4.52	26.9			
	4.53	26.9			
12	4.53	26.8			
	4.50	26.8			
	4.53	26.9			
Average	4.52	26.9			
St dev.	0.01	-			
	4.54	25.3			
	4.53	25.3			
14	4.55	25.2			
	4.55	25.2			
	4.55	25.5			
Average	4.54	25.3			
St dev.	0.01	-			
16	4.55	25.8			

Day	pН	Measuring Temp. pH (°C)				
	4.43	25.9				
	4.42	25.9				
21	4.42	25.8				
	4.44	25.8				
	4.40	25.7				
Average	4.42	25.8				
St dev.	0.01	-				
	4.46	24.5				
	4.46	24.5				
23	4.44	24.8				
	4.43	24.8				
	4.46	24.7				
Average	4.45	24.7				
St dev.	0.01	-				
	4.45	25.1				
26	4.73	25.3				
	4.46	25.4				
	4.55	25.5				
	4.44	25.5				
Average	4.53	25.4				
St dev.	0.09	-				
	4.48	24.1				
	5.33	24.4				
28	5.38	24.4				
	4.53	24				
	4.46	24				
Average	4.84	24.2				
St dev.	0.42	-				
	5.09	25.7				
	4.70	25.8				
33	5.17	25.7				
	5.05	25.7				
	5.19	25.6				
Average	5.04	25.7				
St dev.	0.14					
35	4.66	24.8				

	4.55	25.9		5.09	24.8
	4.58	25.8		5.22	24.8
	4.55	25.7		5.29	24.8
	4.55	25.8		5.26	24.8
Average	4.56	-	Average	5.10	24.8
St dev.	0.01		St dev.	0.18	-
	4.32	25.8		5.07	25.2
	4.33	25.8		5.06	25.2
19	4.36	25.8	37	5.06	25.1
	4.36	25.9		5.06	25.1
	4.37	25.9		5.26	25.4
Average	4.35	25.8	Average	5.10	25.2

Table S1.2. Biomass measurements (gram/330 mL cultivations), its average and standard deviation, including the average pH and pH standard deviation review from Figure S2.1 (data gave rise to Figure 3 in Results).

	Weight (biomass at g/300 mL)				mL)				
Day	M1	M2	M3	M4	M5	Average (biomass at g/L)	stdeV	Average pH	St dev pH
0	2.00*	2.00*	2.00*	2.00*	2.00*	6.66*	0*	6.04	0
2	2.40	2.30	2.60	2.20	2.60	8.06	0.595689	5.60	0.0336
5	2.70	2.70	2.40	2.40	2.80	8.66	0.622986	4.89	0.0160
8	2.12	2.40	2.63	1.93	2.23	7.53	0.890238	4.58	0.0088
12	3.29	3.37	3.15	3.11	3.18	10.72	0.357103	4.52	0.0096
14	2.92	2.85	2.95	2.77	2.85	9.55	0.233575	4.54	0.0072
16	3.63	3.36	3.22	3.03	3.60	11.22	0.846829	4.56	0.0096
19	2.62	2.86	2.84	2.49	2.73	9.02	0.516633	4.35	0.0184
21	2.24	2.70	2.71	2.68	2.22	8.36	0.852246	4.42	0.0104
23	2.37	2.03	2.22	2.18	2.23	7.35	0.405522	4.45	0.0120
26	2.28	2.77	2.47	2.58	2.67	8.50	0.629449	4.53	0.0912
28	2.40	2.66	2.65	2.58	2.31	8.39	0.522821	4.84	0.4152
33	1.70	2.23	2.00	2.09	1.76	6.51	0.742597	5.04	0.1360
35	2.21	1.93	2.50	2.40	2.44	7.65	0.771166	5.10	0.1832
37	1.76	2.17	1.40	2.16	1.89	6.25	1.06263	5.10	0.0632

Note: * biomass yield of inoculate (day 0) was not measured (nor the secondary metabolite expression at day 0), and is hereby described as 2 gram/330 mL in order to not affect the comprehension of the graphics.

Table S 1.3. Secondary metabolites: integration of the areas of the respective compound	unds detected
by UV-LC-MS in the time course (data gave rise to Figures 4 and 5 in Results).	

	Endolide A						
	τ	JV-LC-MS de	etection (integ	ration values)		
day	M1	M2	M3	M4	M5	Average	stdeV
0	0	0	0	0	0	0	0
2	129964	105651	114824	164958	172085	137496	29729
5	157930	181153	194636	200491	206087	188059	19224
8	285513	240304	264489	239391	300849	266109	27229
12	457940	493581	494542	452780	440180	467805	24826
14	698285	616736	482489	601810	462598	572384	98511
16	614164	662272	590916	564919	584426	603339	37344
19	485749	601067	757810	541774	634286	604137	103003
21	597338	757197	927191	586224	529893	679569	162188
23	906082	763431	636085	595579	764619	733159	122637
26	533135	623826	543552	606812	680142	597493	60544
28	806485	755756	502397	1039810	775581	776006	190914
33	793228	578242	633887	883338	923669	762473	151668
35	608069	895080	502558	532433	516837	610995	163942
37	601450	610801	672638	1093560	717146	739119	203684

Endolide B

		UV-LC-MS d					
Day	M1	M2	M3	M4	M5	Average	stdeV
0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
12	51659	35396	0	37615	0	24934	23600
14	40103	51469	36020	41345	0	33787	19724
16	36790	49423	51852	41304	43700	44614	6093
19	26745	44635	19681	59427	59343	41966	18318
21	48744	53697	84212	43355	30758	52153	19855
23	80966	57163	47094	57463	66423	61822	12701
26	43636	11554	35179	45524	41046	35388	13882
28	63643	47540	43034	87384	72212	62763	18146
33	71642	45129	34169	57435	89763	59628	21884
35	42314	82851	29140	31706	39564	45115	21781
37	51797	54377	68390	83538	66274	64875	12687

Mariline A₁/A₂ UV-LC-MS detection (integration values)

Dov	M1	M2	M3	M4	M5	Avorago	stdoV
Day	IVII	IVIZ	IVIS	1014	1115	Average	stuev
0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0
35	0	90993	0	0	0	18199	40693
37	65765	11967	82608	10106	54982	45086	32611

Raw data refers to the integration of the areas of the respective extracted ions in each cultivation extract concentrated two times the initial culture volume, and injected with $2\ \mu L$ in UV-LC-MS (quintuplicate measurements per time point).

Figure S2. Calibration curves

Figure S2.1. Initial calibration curves for endolides A and mariline A₁/A₂.

Calibration curves for diluted series of pure Endolide A and Mariline A_1/A_2 , with 1 μ L injection in UV-LC-MS, ion peaks extracted and respective pseudo molecular ion area recorded:

	Area of pseudo molecular ion				
Concentration	Endolide A, Rt 4.9 min	Mariline A1/A2, Rt 7.4			
500 mg/L	54700000	-			
250 mg/L	50300000	1839000			
125 mg/L	31400000	1332000			
72.5 mg/L	27390000	964900			
31.25 mg/L	20830000	645600			
15.6 mg/L	11220000	371300			
7.8 mg/L	7301000	214100			
3.9 mg/L	4129000	124200			
1.95 mg/L	2890000	68450			
0.975 mg/L	1375000	49490			
0,5 mg/L	661800	-			
0.24 mg/L	407400	-			



Figure S2.2. Calibration curves adapted to the detected pseudo molecular ion area values of the secondary metabolites in the time course

UV-LC-MS maximal pseudo molecular ion area of endolide A had a value of 776006 (average value at day 28), which ranged in the following calibration values of the pure compound.

Concentration	Endolide A, Rt 4.9 min
0.975 mg/L	1375000
0,5 mg/L	661800
0.24 mg/L	407400
0	0



The pseudo molecular ion area average value at day 28 cannot be directly compared with that of the pure compound, as the first it refers to 2 μ L injection and a 2x concentrated sample, i.e. such value must be divided by 4 for direct comparison with the standard curve (1 μ L injection and "1x" concentrated)

Table S2.2.1. Estimated mg of endolide A with the new calibration curve, with the values normalized

Day	Average Pseudo Molecular Ion Area of Endolide A in the Time Course (2 uL Injection, 2x Concentrated)	Estimated mg of Endolide A, 2 µL Injection, 2x Concentrated	Estimated mg of Endolide A, Normalized to 1µL Injection and 1x Concentration
0	0	0	0
2	137496	0,08546332	0,02136583
5	188059	0,122117278	0,03052932
8	266109	0,17869702	0,044674255
12	467805	0,324909802	0,081227451
14	572384	0,400720857	0,100180214
16	603339	0,423160651	0,105790163
19	604137	0,423739134	0,105934784
21	679569	0,478421045	0,119605261
23	733159	0,517269326	0,129317332
26	597493	0,418922788	0,104730697
28	776006	0,548329828	0,137082457
33	762473	0,538519532	0,134629883
35	610995	0,428710613	0,107177653
37	739119	0,521589829	0,130397457



Cultivation time (days)

Figure S2.3 Estimated microtiter yield (mg/L) of endolide A in the time course (normalized)

Calibration curve for endolide B was not performed because no pure compound was available. Adapted calibration curve of mariline A₁/A₂ for the values registered in the time course was not possible, as the residual yield values detected in the early production (the pseudo molecular ion area average of day 37 with a value of 45.086), ranged bellow the most diluted concentration in the mariline A₁/A₂ detectable by LC-MS in the initial calibration curve, i.e. at 0.975 mg/L concentration, the pseudo molecular ion area had a value of 49.490, with the next lower level of concentration registering a non-measurable value of pseudo molecular ion at 0.5 mg/L

Table S2. UV-LC-MS secondary metabolite detection after 8 and 16 days cultivation of the *S. bicolor* 293K04 in a nutrient array of 12 culture media.

- 3 Table S2. UV-LC-MS secondary metabolite detection after 8 and 16 days cultivation of the S. bicolor 293K04
- 4 sp. at 200 rpm (values refer to the integration of the area corresponding to the extracted ion peaks in UV-
- 5 LC-MS analysis of the cultivation extracts concentrated two times the initial culture volume.

					Marilines, I	Marilones,
MEDIUM	Endolide A		Endol	ide B	Stachy	lines
	8 days	16 days	8 days	16 days	8 days	16 days
MMK2	206950	273732				
MALT 2%	442079	1049090				
MV8	4455800	4780600	614564	928657		
YES	887645	487419		95281		
NPF2	487780	581645				
SCY2	184697	210803				
LSFM	276410	316233				
OP26-NLW	264918	251587		112489		
XLA	502108	486697				
XPMK	128101	249634		13597		
Czapek	139622	1653950	167563	252220		
MPY	567354	381883				
BMS		614164		49423		

7 Table S3. Radial growth rates in the 69-day solid BMS medium time course of *S. bicolor*

8 293 K04.

9 Table S3.1. Radial growth raw measurements. Optimum temperature growth data; each column beneath

"M" (measure) are the Y and X axis where mycelium was measured in 95-mm Petri dishes, each time pointin quintuplicate (five measurements).

	TEMP °C	Ν	M1	M	2	M.	3	N	14	Μ	15	
	18	8,5	10	8,5	8	9	13	8,5	9	9	10	
D 7	20	14	9	13	9	12	10	11	10	14	10	
Day /	22	12	11	13	9	10	10	14	10	13	10	
	25	15	11	14	12	14	9,5	12	11	11	11	
	28	13	8	12	11	9	10	12	9	9	8	
	30	8	7	9	7,5	8	6,5	10	8,5	12	7,5	
					Dian	neter mr	n					
	TEM °C	N	M1	M	2	M	3	N	14	M	15	
	18	11	12	9	10	10	15	10	10	10	12	
Day 0	20	15	11	14	11	14	13	12	12	15	11	
Day 9	22	13	12	15	11	11	12	16	12	15	12	
	25	17	13	16	14	16	11	13	13	14	12	
	28	14	9	13	12	11	12	14	11	11	9	
	30	9	9	12	9	9	8	11	9	13	8	
					Dian	neter mr	n					
	TEM °C	Ν	M1	M	2	M.	3	N	14	M5		
	18	12	14	11	11	12	17	12	12	12	14	
Day 12	20	17	13	17	13	16	14	14	14	18	14	
Duy 12	22	16	15	18	13	15	15	18	15	17	15	
	25	19	15	19	19	18	15	15	15	17	14	
	28	16	12	15	14	13	14	16	13	14	11	
	30	10	10	13	10	10	9	13	10	15	9	
					Dian	neter mr	n					
	TEM °C	N	M1	M	2	M.	3	N	14	M	15	
	18	14	16	13	13	13	18	14	14	14	15	
Day 14	20	20	15	19	16	18	16	1/	16	20	16	
5	22	18	17	20	15	1/	1/	20	16	20	1/	
	25	21	1/	20	21	20	16	18	16	19	16	
	28	1/	14	1/	10	14	10	18	14	15	13	
	30	13	10	14	Diam	11	10	15	13	1/	10	
	TEM®C	N	<i>A</i> 1	M	Dian	M	2	N	f /	M	15	
	1 E.WI C	15	10	14	14	10	20	15	14	15	13	
	20	21	10	20	14	20	20	20	10	21	17	
Day 16	20	20	17	20	16	10	10	20	17	21	17	
	25	20	18	21	22	21	17	18	17	20	10	
	23	19	14	18	17	15	17	10	15	17	15	
	30	14	10	15	13	12	12	16	13	17	12	
-	50	17	10	15	Dian	neter mr	n 12	10	15	17	12	
	TEM °C	N	M 1	M)	M	3	N	14	M	15	
	18	17	20	16	16	16	21	17	19	17	19	
	20	23	20	22	19	23	20	21	20	23	20	
Day 19	22	22	21	23	19	21	21	23	19	23	21	
	25	25	19	25	25	23	20	20	18	23	20	
	28	20	16	20	19	16	19	20	17	19	16	
	30	11	14	16	14	14	14	18	15	20	13	
					Dian	neter mr	n	10		20 13		
Dav 21	TEM °C	N	M1	M2	2	M	3	N	14	M5		
Day 21	18	19	21	17	17	18	23	18	20	18	20	

	20	25	20	22	20	24	0.1	22	22	25	1	
	20	25	20	23	20	24	21	23	22	25	21	
	22	24	22	25	20	22	23	25	21	25	22	
	25	26	20	26	25	25	20	20	19	23	21	
	28	21	19	2.2	20	18	19	22	18	20	18	
	30	16	15	17	15	15	15	10	15	21	14	
	50	10	15	1 /	15 D:	15	15	1)	15	21	14	
		,	(1		Dian		1		C 4			
	TEM °C	1	VII .	M ₂	2	M	,	IV.	14	IV	13	
	18	25	20	20	20	22	21	23	23	22	24	
Day 26	20	27	22	26	23	27	24	26	25	28	25	
Day 20	22	26	25	27	22	25	25	27	23	27	25	
	25	29	25	30	30	26	25	26	20	26	25	
	28	24	21	25	23	20	23	25	2.2	2.2	21	
	30	20	18	20	18	17	19	21	18	23	22	
	50	20	10	20	Dian	17 notor mn	1)	21	10	23	22	
	TEM 9C		/ 1	M		M2))	N	r 4	M5		
	TEM C	1	VII 2(11/12		M3	,	IV.	14	IV.	15	
	18	23	26	22	22	22	27	24	25	24	25	
Day 28	20	29	22	27	25	28	25	28	27	29	25	
Duy 20	22	28	26	27	27	26	26	28	24	29	26	
	25	30	27	32	32	27	27	24	22	27	25	
	28	26	23	26	25	27	24	26	23	23	23	
	30	20	19	21	19	19	20	23	2.0	24	17	
					Dian	neter mn	 n				- ,	
	TEM %C	1	<i>I</i> [1	M)	M2	2	N	ſ./	м	15	
	1 E WI C	24	27	22	2 2 2	22	, 10	20	14	24	20	
	18	24	27	23	23	23	28	26	26	24	26	
Day 30	20	30	22	28	25	29	27	29	27	30	27	
2 uj 2 0	22	29	27	29	25	26	27	30	25	30	27	
	25	32	28	34	33	29	27	25	23	29	29	
	28	32	25	27	25	23	25	29	24	25	23	
	30	22	20	22	20	20	21	23	20	25	19	
					Dian	neter mn	n				-	
	TEM °C	י	M 1	M)	M	1	M	[4	М	15	
_		1	11	1012	25	25	20	25	25	20	20	
	18	26	28	25		25	70	25	/ >	/6	78	
	18	26	28	25	23	25	29	25	25	26	28	
Day 33	18 20	26 31	28 25	25 32	23	25 30	29 29	25 30	25 29	26 31	28 28	
Day 33	18 20 22	26 31 33	28 25 30	25 32 31	23 27 26	25 30 30	29 29 30	25 30 32	25 29 32	26 31 33	28 28 29	
Day 33	18 20 22 25	26 31 33 36	28 25 30 33	$ \begin{array}{r} 25 \\ 32 \\ 31 \\ 32 \end{array} $	23 27 26 37	$ \begin{array}{r} 25 \\ 30 \\ 30 \\ 32 \end{array} $	29 29 30 30	$ \begin{array}{r} 25 \\ 30 \\ 32 \\ 30 \end{array} $	25 29 32 36	$ \begin{array}{r} 26 \\ 31 \\ 33 \\ 32 \end{array} $	28 28 29 31	
Day 33	18 20 22 25 28	26 31 33 36 30	28 25 30 33 27	25 32 31 32 31	23 27 26 37 29	$ \begin{array}{r} 25 \\ 30 \\ 30 \\ 32 \\ 27 \end{array} $	29 29 30 30 27	$ \begin{array}{r} 25 \\ 30 \\ 32 \\ 30 \\ 32 \end{array} $	25 29 32 36 32	$ \begin{array}{r} 26 \\ 31 \\ 33 \\ 32 \\ 28 \end{array} $	28 28 29 31 29	
Day 33	18 20 22 25 28 30	26 31 33 36 30 23	$ \begin{array}{r} 28 \\ 25 \\ 30 \\ 33 \\ 27 \\ 20 \\ \end{array} $	25 32 31 32 31 25	23 27 26 37 29 22	$ \begin{array}{r} 25 \\ 30 \\ 30 \\ 32 \\ 27 \\ 21 \\ \end{array} $	29 29 30 30 27 23	$ \begin{array}{r} 25 \\ 30 \\ 32 \\ 30 \\ 32 \\ 24 \end{array} $	25 29 32 36 32 21	$ \begin{array}{r} 26 \\ 31 \\ 33 \\ 32 \\ 28 \\ 26 \end{array} $	28 28 29 31 29 20	
Day 33	18 20 22 25 28 30	26 31 33 36 30 23	28 25 30 33 27 20	25 32 31 32 31 25	23 27 26 37 29 22 Dian	25 30 30 32 27 21 meter mm	29 29 30 30 27 23 n	25 30 32 30 32 24	25 29 32 36 32 21	26 31 33 32 28 26	28 28 29 31 29 20	
Day 33	18 20 22 25 28 30 TEM °C	26 31 33 36 30 23	28 25 30 33 27 20	25 32 31 32 31 25 M2	23 27 26 37 29 22 Dian	25 30 30 32 27 21 meter mm M3	29 29 30 30 27 23 n	25 30 32 30 32 24 <i>M</i>	25 29 32 36 32 21	26 31 33 32 28 26 M	28 28 29 31 29 20	
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					Diar	neter mn	<u>n</u>				-	
	TEM °C	1	MI	M2	2	M3	3	M	14	M	15	
	18	30	33	31	31	30	35	34	33	31	34	
Day 44	20	38	30	42	37	3/	36	36	34	39	3/	
5	22	42	39	39	3/	38	40	41	36	41	3/	
	25	46	41	46	48	45	42	39	44	42	40	
	28	38	3/	40	38	36	38	40	38	36	36	
	30	30	26	31	30	27	30	28	25	32	26	
	TEMOC		A[1	M	Diar	neter mn	n ,	М	Γ <i>Α</i>	1.15		
	1 EM C	21	VII 25	22	222	21) 27	25	14	22	20	
	18	20	21	32	32	31	3/	35	23	32	20	
Day 47	20	30	31	43	40	40	40	40	20	39	39	
	22	43	41	42	59	42	41	43	39	43	40	
	23	49	44	47	20	40	43	40	43	44	40	
	28	21	40	43	22	40	22	43	40	40	20	
	30	51	20	54	J2 Diar	50 neter mr	32 n	30	20	55	29	
	TEM °C	1	M1	M)	M2	2	М	[/	М	5	
	18	33	35	32	32	32	30	35	35	33	36	
	20	39	31	45	40	42	40	41	37	40	40	
Day 49	20	45	43	42	40	44	42	45	39	46	40	
	25	49	45	50	51	49	46	41	48	46	43	
	28	41	40	43	41	41	44	45	41	40	41	
	30	31	28	35	34	30	35	31	26	35	30	
					Diar	neter mn	n					
	TEM °C	I	M1	M2	2	M3	3	М	[4	М	[5	
	18	33	35	33	33	33	40	35	35	34	37	
D 52	20	42	33	48	44	43	43	43	40	44	42	
Day 52	22	46	43	45	43	45	44	45	42	47	43	
	25	51	50	50	53	49	47	41	48	47	47	
	28	44	42	46	43	43	45	48	45	44	45	
	30	34	31	37	35	33	36	32	28	38	32	
					Dian	neter mn	n					
	TEM °C	1	M1	M2	2	M3	3	М	[4	М	[5	
	18	34	36	35	35	33	42	36	36	35	41	
Day 55	20	42	34	49	45	46	44	44	41	45	44	
Duy 55	22	50	45	50	46	46	46	49	45	49	45	
	25	55	52	53	55	52	49	44	50	47	49	
	28	45	45	47	43	45	46	48	45	44	49	
	30	34	31	39	37	35	38	33	28	40	35	
		-			Dian	neter mn	n					
	TEM °C	1	M1	M2	2	M3	3	M	[4	M	[5	
	18	34	37	36	35	36	44	38	40	37	42	
Day 57	20	43	34	51	47	46	44	44	41	45	44	
	22	51	48	51	47	48	49	51	47	50	48	
	25	56	53	56	57	55	50	45	53	49	51	
	28	45	45	47	44	45	48	50	47	45	50	
D (2	30	54	31	40	40 D	36	38	33	28	41	36	
Day 62					Dian	neter mn	n					

	TEM °C	l	M1	M2	2	M3	3	M	[4	M5					
	18	36	38	38	38	39	45	40	42	38	44				
	20	45	36	55	50	49	49	50	46	49	46				
	22	55	53	56	53	54	55	56	53	56	54				
	25	64	59	60	61	61	57	52	54	56	54				
	28	46	46	47	44	47	49	50	50	47	52				
	30	34	32	43	45	41	45	34	30	45	39				
					Dian	neter mn	n								
	TEM °C	N	M1	M2	2	M3	3	M	[4	M5					
	18	36	39	38	38	39	46	41	43	39	45				
Day 64	20	46	36	55	50	49	50	50	47	51	47				
Day 04	22	57	55	59	54	55	56	58	55	57	56				
	25	64	60	61	61	61	59	52	62	56	54				
	28	46	46	47	44	47	49	53	51	48	52				
	30	34	32	43	46	42	45	34	30	46	40				
	Diameter mm														
	TEM °C	N	M1	M2	2	M3	3	M	[4	М	(5				
	18	38	39	40	40	40	46	42	43	41	46				
Day 66	20	53	38	58	56	51	53	52	51	53	52				
Day 00	22	57	56	60	56	55	57	59	55	57	56				
	25	64	60	61	61	61	59	52	62	56	54				
	28	47	47	47	45	49	51	54	51	49	52				
	30	34	32	43	46	42	45	34	30	46	41				
					Dian	neter mn	n								
	TEM °C	N	M1	M2	2	M3	3	M	[4	М	(5				
	18	39	41	41	41	41	48	44	45	43	47				
Day 60	20	55	38	61	57	55	56	55	53	55	54				
Day 09	22	57	57	62	58	57	58	60	56	57	56				
	25	64	60	61	61	62	60	52	63	56	54				
	28	49	49	47	45	51	52	56	54	50	52				
	30	34	32	45	50	44	48	34	30	49	44				

13 Table S3.2. Average growth) rates (S3.2a) and standard deviation values (S3.2b) from Figure 4 in Results (radial growth Vs

14 temperature)

15	Table S3.2a . Average growth rates shown in figure 4 of main manuscript.																
	-	1	_	-			D 44	D 10								D 40	

TEMP/D. (Days)	D. 7	D. 9	D. 12	D. 14	D. 16	D. 19	D. 21	D. 26	D. 28	D. 30	D. 33	D. 35	D. 38	D. 40	D. 42	D. 44	D. 47	D.49	D. 52	D. 55	D. 57	D. 62	D. 64	D. 66	D. 69
18	9,35	11	12,7	14,4	16,3	17,8	19,1	22	24	25	26,2	28	29	30,1	31,4	32,2	33,4	34,2	34,8	36,3	37,9	39,8	40,4	41,5	43
20	11,1	13	15	17,3	19,2	21,1	22,4	25,3	26,5	27,4	29,2	29,9	31,9	32,9	35,1	36,6	38,9	39,5	42,2	43,4	43,9	47,5	48,1	51,7	53,9
22	11,1	13	15,7	17,7	19,2	21,3	22,9	25,2	26,7	27,5	30,6	31,6	33,3	34,7	37,3	39	41,7	42,6	44,3	47,1	49	54,5	56,2	56,8	57,8
25	11,9	14	16,6	18,6	18,8	20,8	22,5	26,2	27,3	28,9	32,9	33,3	36,8	39,4	41,4	43,3	45	46,8	48,3	50,6	52,5	57,8	59	59	59,3
28	10,1	12	13,8	15,4	16,6	18,2	19,7	22,6	24,6	25,8	29,2	29,6	31,6	33,2	35,6	37,7	41	41,7	44,5	45,7	46,6	47,8	48,3	49,2	50,5
30	8,4	9,7	10,9	12,4	13,4	14,9	16,2	19,6	20,2	21,2	22,5	23,7	24,2	25,7	27,7	28,5	30,7	31,5	33,6	35	35,7	38,8	39,2	39,3	41

Table S3.2b. Standard deviation values shown in figure 4 of main manuscript for the growth rates for the average values of the quintuplicate measures in the
 X and Y axis.

TEMP/D. (Days)	D. 7	D. 9	D. 12	D. 14	D. 16	D. 19	D. 21	D. 26	D. 28	D. 30	D. 33	D. 35	D. 38	D. 40	D. 42	D. 44	D. 47	D.49	D. 52	D. 55	D. 57	D. 62	D. 64	D. 66	D. 69
18	0,99	1,3	1,38	1,16	1,76	1,56	1,52	1,4	1,4	1,6	1,28	1,6	1,2	1,3	1,6	1,6	1,88	1,8	1,6	2,08	2,48	2,36	2,68	2,2	2,4
20	1,52	1,4	1,6	1,56	1,76	1,32	1,6	1,5	1,8	1,8	1,6	2,32	1,7	1,74	1,72	2,08	2,14	2,3	2,36	2,64	2,74	3,4	3,28	3,02	3,36
22	1,42	1,5	1,24	1,44	1,44	1,16	1,5	1,24	1,1	1,6	1,6	1,48	1,22	1,56	1,7	1,6	1,7	2	1,3	1,92	1,4	1,1	1,24	1,2	1,36
25	1,42	1,5	1,8	1,8	1,8	2,3	2,5	2,08	2,42	2,52	2,08	2,24	2,04	2,28	2,88	2,5	2,4	2,6	2,3	2,8	3	3,2	3	3	3,18
28	1,52	1,4	1,24	1,4	1,48	1,56	1,3	1,4	1,4	2,12	1,64	0,92	1,6	0,72	1,32	1,16	1,2	1,38	1,3	1,44	1,8	1,96	2,36	2,24	2,5
30	1,18	1,4	1,66	2	1,68	1,88	1,68	1,6	1,48	1,44	1,7	2,1	1,96	1,9	2,1	2,1	2,1	2,6	2,4	2,8	3,36	5,04	5,36	5,44	6,8

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Values show the average of the Y and X values per "M" and between the quintuplicate measures M1-M5, each with a X/Y average)